

Patent Application Amendments of Mark W. Reents for "Convertible Hard Cap"
Page 1 of 4

Application No. 10/735,471

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Drawings Amendments

See new drawings attached.

Reference numerals 50,56,58,62,74, and 76 have been corrected.

Reference numerals 56 and 58 are deleted since they do not appear in description or in drawings.

Specification Amendments

On page 11, line 4 the phrase.

The door handle 44 is a flat and hinged made from metal and located in the outer center bottom of the cap door 30

Amendment

The door handle 44 is hinged made from metal and located in the outer center bottom of cap door 30. The door handle 44 is hinged to remain in a flat position to accommodate a flat or smooth appearance as seen in Fig 12 exploded view.

Patent Application of Mark W. Reents for "Convertible Hard Cap" continued – Page 6

Fig 10 is a rear view of the convertible hard cap accessory embodiment without the weather seal, inner and outer flanges apart from the truck bed.

Fig. 11 is a left-side view of one cap mid-section without the advanced base.

Fig 12 is a perspective left-side view of the smooth embodiment apart from truck bed.

Fig 13 is a top view of the advanced track only.

DRAWINGS – Reference Numerals

16.	truck cab	48.	door pivot
18.	truck bed	50.	door ball guide
20.	bed rails	52.	cap handle
22.	convertible hard cap	54.	weather seal
24.	housing section	56.	inner flange
26.	mid sections	58.	outer flange
28.	end section	60.	housing lock pin
30.	cap door	62.	groove
32.	top track	64.	power track
34.	base track	66.	bearing extension
36.	ball guide	68.	electric mini-winch
38.	lock hole	70.	winch cable
40.	door shelf	72.	recoil spring
42.	door magnet	74.	convertible upper side
44.	door handle	76.	lower side
46.	door hinge	78.	scissor jack

Patent Application of Mark W. Reents for "Convertible Hard Cap" continued – Page 11

of aluminum. There are two door magnets 42 attached at the inside base of the cap door 30 and attached to the inner rear edge of the door shelf 40 as seen in Fig 6 cross sectional left-side view and Fig 7 rear view. The door magnets 42 are at the inner base of the cap door 30 and at the base of the door shelf 40. The door handle 44 is a flat and hinged made from metal and located in the outer center bottom of the cap door 30. When the cap door 30 is in the open position it runs horizontal and parallel with cap sections 24, 26 and 28 roof. In the open position the cap door 30 is held in place by the locking or tension interaction caused by the door ball guides 50 and the lock holes 38 located throughout the length of the end section's 28 top tracks 32 and by the door magnets 42. The end section 28 top track's 32 lock holes 38 are used only for the cap door's 30 door ball guides 50.

The outer rear end or distal end of the end cap 28 extends inward toward the center of the truck bed 18, perpendicular and horizontal to the top of the base track 34 and is designed to facilitate the cap door 30 as seen in perspective left-side view Fig 5 and Fig 7 rear view.

ADDITIONAL EMBODIMENTS

Powered Convertible Hard Cap. Fig 8 shows a left cut view of the powered convertible cap apart from the truck bed. The powered version herein described is identical to the basic version in description and operation except for the power track 64, bearing extension 66, electric mini-winches 68, winch cable 70 and recoil spring 72. The two electric mini-winches 68 are attached to each power track 64 near the rear and under the second level of the power track 64. The electric mini-winches 68 are connected to the vehicle or alternate power source not shown. The winch cable 70 runs from the electric min-winches 68 and is attached to the bearing extension 66 that extends from the bottom of the distal ball guide 36 on the end section 28 bases though the first level and into the second level of the power track 65. When activated the electric mini-winches 68 pull the end section 28 from its contracted position within the housing section 24. As the end

Patent Application of Mark W. Reents for "Convertible Hard Cap" continued – Page 13

independent scissor jack 78, upper vertical track 80 and lower vertical track 82 that work in unison when force is applied by powered or manual means.

Accessory Embodiment. Fig 10 rear view of convertible hard cap accessory embodiment apart from a truck bed that shows the accessory base track 84 with the track grooves 62 facing outward instead of upward as in the basic embodiment as seen in Fig 9 the cross sectional left-side view. This is done to accommodate a tool box 102 or other bed rail 18 accessories that would normally rest on the top of bed rails 20 of an open truck bed without any cover but when using the accessory embodiment the tool box 102 would then rest on the top of the accessory base track 84. This allows the accessory embodiment to function identical to the preferred basic embodiment 22. Each cap section 24, 26 and 28 angles inward where the ball guides 36 are attached and interact with the accessory base track 84 as in the basic preferred embodiment. The accessory base track 84 and the angled cap section base 86 is the only major difference. The accessory base track 84 has individual grooves 96, 98 and 100 for each cap section 24, 26 and 28 to facilitate movement.

Smooth Convertible Hard Cap. Fig 11 shows the perspective left-side view, Fig 12 show a top view of one advance base track and Fig 13 shows a perspective left-side view of the mid- section 26. The smooth embodiment's (Fig 11) advanced base tracks 90 allow the cap sections 24, 26 and 28 to overlap when contracting and extending as described in the basic embodiment. The smooth convertible hard top embodiment's advanced base tracks 90 and top tracks 32 allow the cap sections 24, 26 and 28 to have a smooth outer surface when completely extended. In the basic embodiment when the cap sections 24, 26 and 28 are completely extended they remain in the overlapped position giving a stepping or overlapping appearance. In this smooth embodiment all of the cap sections 24, 26 and 28 are of the same dimensions. The advanced base tracks 90 has individual cap section grooves 96, 98 and 100 that rise and lower to direct the caps

Patent Application of Mark W. Reents for "Convertible Hard Cap" continued – Page 14

sections 24, 26 and 28 outward and inward to their positions in successive order. The advanced base track's 90 grooves 96, 98 and 100 direct the cap sections 24, 26 and 28 (that are of the same size) to successive lower and inner positions to be encompassed by the housing section 24 when in the compete contracted position. When the cap sections 26 and 28 begin to extend from the contracted position each cap section 26, and 28 will follow their individual base track groove's 98 and 100 which will rise to the level of the housing section's 24 outer most highest groove 96 thus aligning all the cap sections 24, 26 and 28. Mid sections 26 the proximal or front outer edge will be a depressed cap groove 92 and at the outer distal or rear outer edge will be a top cap seal 94. The housing section 24 will have the depressed cap groove 92 only at the distal or rear edge and the end section 28 will have the depressed cap groove 92 only at the proximal or front edge.

A rubber strip (not shown) will run the length and width of each depressed cap groove that acts as a weather seal when the cap sections 24, 26 and 28 are in the complete extended position. The depressed cap grooves 92 and the top cap seals 94 interact with the advanced base tracks 90 to facilitate a weather seal and to give the smooth appearance. The top tracks 32 where the ball guides 36 are located at the proximal or front end of each top track 32 will have the ability to hinge (not shown) so that track integrity 32 and 90 can be maintained and to allow the cap sections 26 and 28 to ride and descend on the advanced base track 90. The interaction of the ball guides 36 and hole locks 38 will be identical as in the basic preferred embodiment in description and operation. The cap sections 26 and 28 will be of rigid material that will have the ability to flex to facilitate the groove's 98 and 100 direction All other aspects of smooth convertible hard cap embodiment not mentioned will be identical to the basic embodiment. The smooth convertible hard cap embodiment can incorporate the vertical rise aspects of the advance embodiment, the accessory track, and/or be a powered embodiment.